

WBS 2.0

Civil

| | | MSU | Cost | MSU |
|---|-----------------------|---------|---------|---------|
| | Description | Sq. Ft. | Sq. Ft. | \$M |
| 1 | Site | | | \$11.7 |
| 2 | Support, Lab/Shop | 60,000 | \$196 | \$11.8 |
| 3 | Driver | | | |
| | Tunnel | 36,800 | \$326 | \$12.0 |
| | Klystron Building | | | |
| | Linac BSY | | | |
| 4 | Target Facilities | 41,500 | \$379 | \$15.7 |
| 5 | ISOL Facility | | | |
| | Fragment Seperator | 11,700 | \$580 | \$6.8 |
| | High Bay | 63,400 | \$237 | \$15.0 |
| 6 | High Energy Facility | | | |
| | Fragment Seperator | 8,500 | \$580 | \$4.9 |
| | High Bay | 54,000 | | |
| 7 | Cryogenic Building(s) | 9,100 | \$432 | \$3.9 |
| | | | | |
| | Totals | 329,100 | | \$105.4 |
| | Contingency - 20% | | | \$126.5 |

| Item | Unit | Cost/Unit | Description | Item Cost | Total Cost |
|-------------------------|-----------------|-----------------|--|-----------|---------------|
| Site Preparation | Acre | \$ 90,000.00 | Extensive clear and grub, demolition | 6.00 \$ | 540,000.00 |
| Car Parking | Ncars | \$ 3,000.00 | 90 degree, 4" bitum paving, 8" gravel base | 500 \$ | 1,500,000.00 |
| Roadway | LF Road | \$ 200.00 | 8" Asphalt, 24' wide | 1000 \$ | 200,000.00 |
| Sidewalks | LF Sidewall | \$ 13.20 | 4" conc paving, 4" gravel, 4' width | 2301 \$ | 30,373.20 |
| Site Development | Acre | \$ 6,000.00 | Average site development | 2.71 \$ | 16,260.00 |
| Landscaping | LS | \$ 410,000.00 | Average: topsoil, sod, some trees/shrubs | 1 \$ | 410,000.00 |
| Fence | LF | \$ 60.00 | Chain link vinyl fence & gate ?? | 3000 \$ | 180,000.00 |
| Water Supply & Dist | LF Utilities | \$ 36.00 | 8" ductile iron class 250, excav & backfill | 3600 \$ | 129,600.00 |
| Water Supply & Dist | LF Utilities | \$ 32.00 | 6" fire loop, 3 hydrants | 1200 \$ | 38,400.00 |
| Water Supply & Dist | LS | \$ 30,000.00 | Water treatment ?? | 1 \$ | 30,000.00 |
| Storm Drainage Syst | LF Utilities | \$ 50.00 | 15" clay | 1000 \$ | 50,000.00 |
| Sanitary Sewer system | LF Utilities | \$ 150.00 | 18" concrete pipe, tie to existing line at | 7920 \$ | 1,188,000.00 |
| Elect. & Communications | LF Distribution | \$ 200.00 | Elect. & communication ductbank & man | 1000 \$ | 200,000.00 |
| Gas Dist. System | LF Utilities | \$ 35.00 | 4" steel | 1000 \$ | 35,000.00 |
| Electric Dist System | LF Utilities | \$ 70.00 | Underground elect. cable on site | 1000 \$ | 70,000.00 |
| Telephone Dist Sys | LS | \$ 5,000.00 | Telephone support | 1 \$ | 5,000.00 |
| Site Lighting Syst | SF Lighting | \$ 0.70 | 5 fc.20' high, high press sod 400 w fix, incl. | 100000 \$ | 70,000.00 |
| Elect. Dist. To Site | LF Distribution | \$ 7,000,000.00 | | 1 \$ | 7,000,000.00 |
| | | | | | |
| | | | | \$ | 11,692,633.20 |